Personality Traits Structuring Can Lead to Uncovering Its Adaptive Function

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Abstract: There exists a clear distinguishable personality variation along a big amount of dimensions, such as dependability, honesty, cooperativeness, generousness, humorousness, friendliness, competitiveness, and so on. The practice of classification of trait words indicates that each original list consisting of hundreds of these words of personality lexicon can be replaced by 5-6 broad factorial dimensions. Usually, the personality psychologists do not explain the nature of such empirically derived personality traits structures. Instead, they often stress that neither theory is supported by such factorial models of personality traits structure due to their pure empirical origin. The author proposed a three-dimensional ("rugby cake") model allowing the replacement of a six-factor representation of personality traits structure by a more parsimonious representation with only three spatial (underlying) dimensions named Advantageousness (A), Benignity (B), and Controllability (C). In the present paper he proposed that the human capability to distinguish between numerous personality traits dimensions evolved as an essential life skill determined by a relatively autonomous, automatic, and specialized computational device. This device makes nearly everyone well enough in navigating between hundreds of narrow personality traits dimensions without much effort and outside of awareness. People can unconsciously organize the personality perception process in the framework of a very parsimonious three-dimensional ABC system. It provides a sense to which extent a particular narrow personality trait is advantageous (A), benign (B), and controlled (C) to solve the adaptive problems of predicting and controlling others' behavior via perception, classification, judgment, and signaling of fitness correlated personality traits.

Keywords: Personality Traits Structure, Evolutionary Psychology, Adaptive Problem, Factor Analysis, Social Cognition

1. Introduction

There exists a clear distinguishable variation along a big number of personality dimensions including dependability, honesty, cooperativeness, generousness, humorousness, friendliness, competitiveness, etc. The practice of classification of trait words indicates that each original list consisting of hundreds of these words of personality lexicon can be replaced by 5-6 broad factorial dimensions. The examples are the models with 6±1 factors suggested in McCrae & Costa [1], Goldberg [2], Almagor et al. [3], De Raad et al. [4], Saucier [5], and Ashton et al. [6]. Usually, the personality psychologists do not explain the nature of such empirically derived personality structures. Instead, they often stress that neither theory is supported by such factorial models of personality traits structure due to their pure empirical origin. The exceptions are scarce, but, as early as in year 1983, Hogan [7] has put forward a socio-analytic interpretation of the two-factorial structure of the Big Five with "meta-traits" "Stability" and "Dynamism" allowing the distinction of the traits for "getting along" and "getting ahead", respectively. According to this interpretation, people are deeply concerned with solving two great problems, to not be shunned (or to get along) and to not lose status (or to get ahead). This implies that all social interactions can be explained by two very wide motives: to seek the acceptance and recognition of peers and to seek status and power relative to peers, respectively (Hogan, 1983, 1996) [7, 8]. This idea, however, does not explain the emergence

of less broad 5-6 personality traits that are reliably revealed by factor analysis of personality lexicons.

Earlier [9-11], the author proposed a three-dimensional model allowing the replacement of a six-factor representation of personality traits structure by a more parsimonious representation with only three spatial (underlying) dimensions named Advantageousness (A), Benignity (B), and Controllability (C). The empirical results on development and testing this model were provided in more detail in Putilov [11]. Therefore, two sections of the present paper (Methods and Results) contain very short description of these earlier reported results to introduce the idea formulated in the following section (Hypothesis). This section contains the major proposition of the present paper on a possibility to explain adaptive function of the theoretically predicted and empirically revealed personality traits structure (Figure 1). It is suggested that the structure of personality lexicon in a three-dimensional shape of rugby cake (scalene ellipsoid) can reflect human's capability to perceive and judge any narrow personality trait in accordance with its relevance to these just three most important dimensions. In other words, humans can be adapted to discriminate the positions of any of a huge number of personality-relevant words in the space formed by the underlying orthogonal dimensions of Advantageousness, Benignity, and Controllability (A, B, and C). Therefore scientific research in the field of personality psychology leads to uncovering 5-6 factorial dimensions reflecting such ABC system (Figure 1) aimed on navigation among numerous personality traits dimensions.
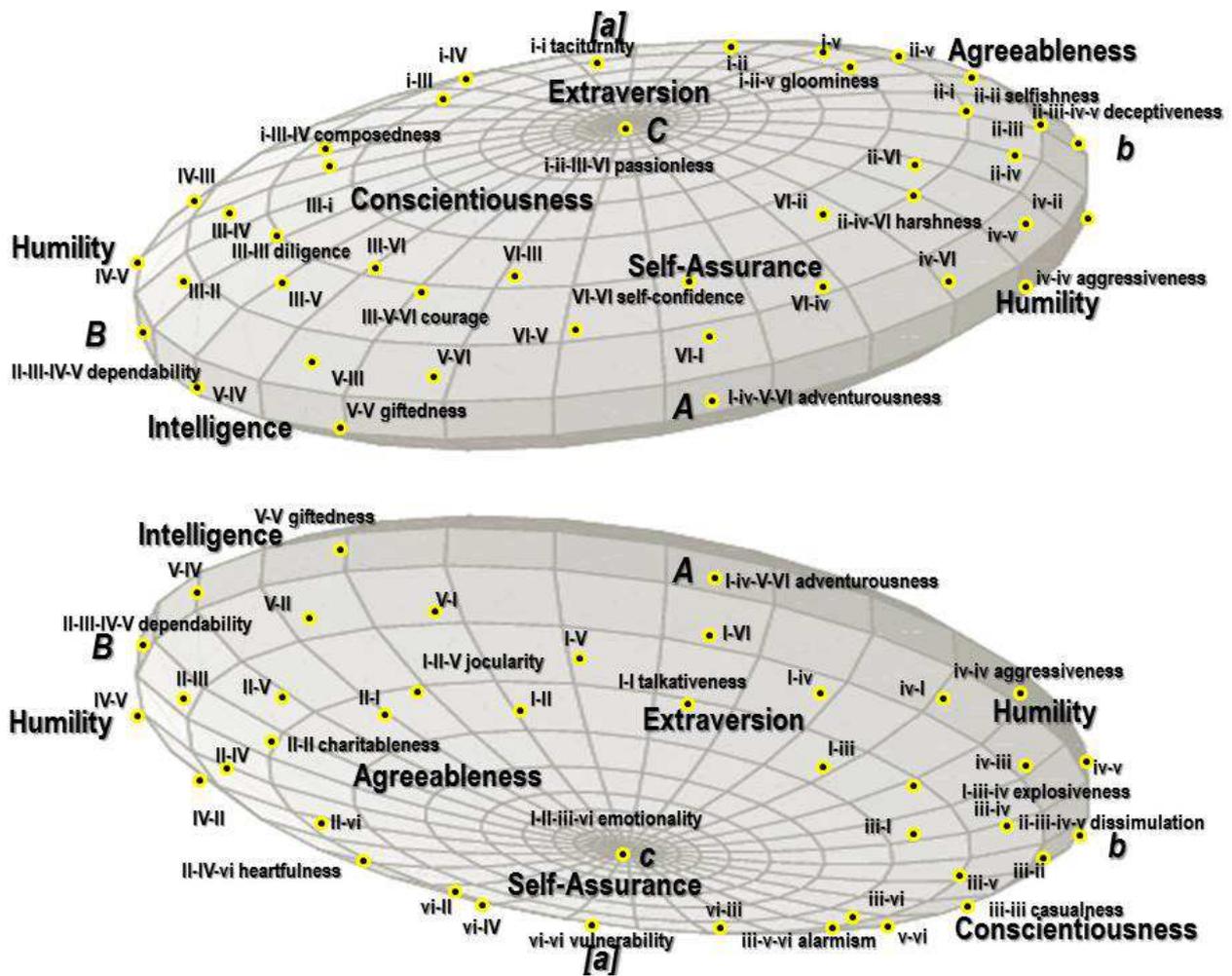

Figure 1. Rugby cake model of the personality traits structure.

Figure illustrates structural relationship between six factorial dimensions and three spatial (underlying) dimensions of the personality traits structure, Advantageousness, Benignity, and Controllability (A vs. [a], B vs. b, and C vs. c). Each of the six factorial dimensions, Extraversion (I), Agreeableness (II), Conscientiousness (III), Humility (IV), Intelligence (V), and Self-Assurance (VI), includes a "core" narrow personality trait (e.g., I-I vs. i-i for Extraversion with example words for poles of "core" narrow personality trait "I-I talkativeness" vs. "i-i taciturnity") whereas the underlying dimensions point at the narrow traits representing "mixture" of four such dimensions (e.g., "I-iv-V-VI" vs. ["i-IV-v-vi"] with example words "adventurousness" vs.["reservedness"], respectively, "II-III-

IV-V" vs. "ii-iii-iv-v" with example words "dependability" vs. "deceptiveness", respectively, "i-ii-III-VI" vs. "I-II-iii-vi" with example words "passionless" vs. "emotionality", respectively). The pole symbol of a spatial dimension on the far side of the rugby cake shape is taken in [square brackets].

2. Methods

To address an issue of more parsimonious (three-dimensional) representation of a set of 6 factorial dimensions, the Russian personality lexicon was structured in two independent questionnaire studies. Russian speaking respondents used the lists of 496 and 296 personality-relevant nouns for judging 1242 and 447 peoples, respectively. Each respondent provided three ratings (of self, of liked one, and of disliked rather than disliked one). To visualize the revealed 6 factorial dimensions of the Russian personality traits structure, a three-dimensional rugby (ball) cake model was suggested [10] and examined by comparison of model-predicted and observed patterns of correlation of each noun with 6 factorial scales [11].

3. Results

Using results on classification of correlation patterns, each noun was linked to one of 43 narrow personality traits predicted by the rugby cake shape [11]. A shorter list of nouns was selected for exemplifying each pole of these traits and all these nouns were evenly written on the surface of the rugby cake shape [10, 11] or, in other words, the structure with underlying spatial dimensions A, B, and C [9]. Figure 2 illustrates one of possible ways of combination of the vast majority of these 43 narrow personality traits into 6 broad traits resembling the sets of 5-6 factors uncovered by applying the traditional factor-analytic approach to structuring personality trait descriptors in different languages and cultures [1-6]. The results, in particular, highlighted the existence of remarkable difference between the three underlying axes of the ABC structure in their length, with B-axis (left-right) being the longest while C-axis (up-down) being the shortest one [11].

Figure 2. *Six constellations of narrow personality traits predicted by the rugby cake model.*

Figure illustrates one of possible ways of clustering of the vast majority of narrow personality traits predicted by the rugby cake model in a more manageable set of 6 broad personality traits. Six dimensions yielded by factorial analysis can be mapped on the surface of scalene (triaxial) ellipsoid or, simpler, rugby cake. Each of the six factorial dimensions, Extraversion (I), Agreeableness (II), Conscientiousness (III), Humility (IV), Intelligence (V), and Self-Assurance (VI), includes a "core" narrow personality trait (e.g., I-I vs. i-i for Extraversion with example words for poles of "core" narrow personality trait "I-I talkativeness" vs. "i-i taciturnity") whereas "mixed" narrow traits emerged as the combinations of these dimensions (e.g., I-II vs. i-ii for combination of Extraversion with Agreeableness). To extend the 6 areas of factorial dimensions, they can be paired with 6 intermediate areas located between them, Assertiveness (I), Tenderness (II), Honesty (III), Stability (IV), Openness (V), and Masculinity (VI), respectively. Lines connect the locations of narrow traits mapped within each of such six pairwise combinations of factorial and intermediate areas. Each of six factorial areas includes four and each of six intermediate areas includes three narrow traits. Only one of 43 model-predicted narrow traits, "I-II-iii-vi emotionality" vs."i-ii-III-VI passionless", was not included in any of these clusters with 7 traits each (7*6=42) due to its remote location at the north vs. south pole of the rugby cake shape.

The following nouns were selected as example words to characterize two poles of 42 narrow personality traits grouped into trait' clusters I-VI:

I. Extraversion:

Eloquence, talkativeness, friendliness, gregariousness, boisterousness, restlessness, cockiness, theatricality vs. taciturnity, terseness, reticence, secretiveness, pensiveness, quietness, modesty, prudishness

I+. I-II-iv-VI. Assertiveness:

Adventurousness, hazardousness, hardiness, refractoriness, assertiveness, eagerness vs. reservedness, shyness, bashfulness, timidity, inhibition, lethargy

II. Agreeableness:

Charitableness, kindness, generousness, responsiveness, affability, understanding, compassionateness, trustfulness vs. selfishness, stinginess, distrustfulness, suspiciousness, boorishness, tough-mindedness coldness, sternness

II+. II-IV-vi. Tenderness:

Heartfulness, tender-mindedness, forgiveness, meekness, cordiality, unpretentiousness vs. harshness, ruthlessness, spitefulness, stiffness, self-assumption, haughtiness

III. Conscientiousness:

Diligence, orderliness, gravity, seriousness, efficiency, purposefulness, austerity, perfectionism vs. carelessness, casualness, frivolousness, tomfoolery, idleness, laziness, laxity, negligence

III+. II-III-IV-V. Honesty:

Dependability, scrupulousness, dutifulness, frugality, benevolence, fidelity vs. deceptiveness, unconscientiousness, insubordination, irresponsibility, dissimulation, slyness

IV. Humility:

Calmness, peacefulness, humbleness, mildness, tactfulness, tolerance, compliance, manageability vs. aggressiveness, hostility, forwardness, quarrelsomeness, crudity, rudeness, rebelliousness, willfulness

IV+. i-III-IV. Stability:

Composedness, sedateness, patience, tranquility, moderation, temperance vs. explosiveness, hot-temperedness, ill-temperedness, nervousness, fickleness, volatility

V. Intelligence:

Giftedness, inventiveness, inquisitiveness, versatility, perspicacity, wisdom, prudence, sanity vs. commonness, ordinariness, ignorance, immaturity, illogicality, light-mindedness, light-heartedness, rashness

V+. I-II-V. Openness:

Exuberance, jocularity, artistry, wittiness, emancipation, relaxedness vs. gloominess, moodiness, backwardness, impersonality, constraint, restraint

VI. Self-Assurance:

Rigidity, self-confidence, coolness, imperturbability, inflexibility, toughness, headstrongness, imperiousness vs. indecisiveness, vulnerability, sentimentality, susceptibility, flabbiness, hopelessness, docility, submissiveness

VI+. III-V-VI. Masculinity:

Courage, masculinity, ambitiousness, leadership, competitiveness, resourcefulness vs. alarmism, cowardice, dependence, obsequiousness, clumsiness, incompetence

(Plus 43rd narrow trait outside the six clusters): I-II-iii-vi. Emotionality:

Emotionality, oversensitivity vs. impartiality passionless.

These selected words can also serve as a set of items of inventory designed for further exploration of the personality traits structure predicted by the model. Figure 3 illustrates a one-page version of such an inventory, the 172-item RCIP (Rugby Cake Inventory of Personality).

172-itemRCIP ■Last name, first name:...
　　　　　　■Gender:　　　　　　　　　　　　■Year of birth:

Filled or crossed square indicates your response to a question: Is it a trait of this person? Chose one of 3 response options:

Yes/?/No
□□□001 adventurousness
□□□002 affability
□□□003 aggressiveness
□□□004 alarmism
□□□005 ambitiousness
□□□006 artistry
□□□007 assertiveness
□□□008 austerity
□□□009 backwardness
□□□010 bashfulness
□□□011 benevolence
□□□012 boisterousness
□□□013 boorishness
□□□014 calmness
□□□015 carelessness
□□□016 casualness
□□□017 charitableness
□□□018 clumsiness
□□□019 cockiness
□□□020 coldness
□□□021 commonness
□□□022compassionate-
　　　ness
□□□023 competitiveness
□□□024 compliance
□□□025 composedness
□□□026 constraint
□□□027 coolness
□□□028 cordiality
□□□029 courage
□□□030 cowardice
□□□031 crudity
□□□032 deceptiveness
□□□033 dependability
□□□034 dependence
□□□035 diligence
□□□036 dissimulation
□□□037 distrustfulness
□□□038 docility
□□□039 dutifulness
□□□040 eagerness
□□□041 efficiency
□□□042 eloquence
□□□043 emancipation
□□□044 emotionality

Yes/?/No
□□□045 explosiveness
□□□046 exuberance
□□□047 fickleness
□□□048 fidelity
□□□049 flabbiness
□□□050 forgiveness
□□□051 forwardness
□□□052 friendliness
□□□053 frivolousness
□□□054 frugality
□□□055 generousness
□□□056 giftedness
□□□057 gloominess
□□□058 gravity
□□□059 gregariousness
□□□060 hardiness
□□□061 harshness
□□□062 haughtiness
□□□063 hazardousness
□□□064 headstrongness
□□□065 heartfulness
□□□066 hopelessness
□□□067 hostility
□□□068 hot-
　　　temperedness
□□□069 humbleness
□□□070 idleness
□□□071 ignorance
□□□072 illogicality
□□□073 ill-temperedness
□□□074 immaturity
□□□075 impartiality
□□□076 imperiousness
□□□077 impersonality
□□□078 imperturbability
□□□079 incompetence
□□□080 indecisiveness
□□□081 inflexibility
□□□082 inhibition
□□□083 inquisitiveness
□□□084 insubordination
□□□085 inventiveness
□□□086 irresponsibility

Yes/?/No
□□□087 jocularity
□□□088 kindness
□□□089 laxity
□□□090 laziness
□□□091 leadership
□□□092 lethargy
□□□093 light-
　　　heartedness
□□□094 light-mindedness
□□□095 manageability
□□□096 masculinity
□□□097 meekness
□□□098 mildness
□□□099 moderation
□□□100 modesty
□□□101 moodiness
□□□102 negligence
□□□103 nervousness
□□□104 obsequiousness
□□□105 orderliness
□□□106 ordinariness
□□□107 oversensitivity
□□□108 passionless
□□□109 patience
□□□110 peacefulness
□□□111 pensiveness
□□□112 perfectionism
□□□113 perspicacity
□□□114 prudence
□□□115 prudishness
□□□116 purposefulness
□□□117 quarrelsomeness
□□□118 quietness
□□□119 rashness
□□□120 rebelliousness
□□□121 refractoriness
□□□122 relaxedness
□□□123 reservedness
□□□124 resourcefulness
□□□125 responsiveness
□□□126 restlessness
□□□127 restraint
□□□128 reticence
□□□129 rigidity
□□□130 rudeness
□□□131 ruthlessness
□□□132 sanity
□□□133 scrupulousness

Yes/?/No
□□□134 secretiveness
□□□135 sedateness
□□□136 self-assumption
□□□137 self-confidence
□□□138 selfishness
□□□139 sentimentality
□□□140 seriousness
□□□141 shyness
□□□142 slyness
□□□143 spitefulness
□□□144 sternness
□□□145 stiffness
□□□146 stinginess
□□□147 submissiveness
□□□148 susceptibility
□□□149 suspiciousness
□□□150 taciturnity
□□□151 tactfulness
□□□152 talkativeness
□□□153 temperance
□□□154 tender-
　　　mindedness
□□□155 terseness
□□□156 theatricality
□□□157 timidity
□□□158 tolerance
□□□159 tomfoolery
□□□160 tough-
　　　mindedness
□□□161 toughness
□□□162 tranquillity
□□□163 trustfulness
□□□164 unconscientious-
　　　ness
□□□165 understanding
□□□166 unpretentious-
　　　ness
□□□167 versatility
□□□168 volatility
□□□169 vulnerability
□□□170 willfulness
□□□171 wisdom
□□□172 wittiness

THANK YOU!

Figure 3. The 172-item RCIP (Rugby Cake Inventory of Personality) designed for further exploration of the personality traits structure predicted by the model.

4. Hypothesis

It seems that people across the globe have enduring personality traits that are useful in predicting human behavior and in making important social decisions on the basis of such prediction. Since humans are a species with very complex social organization, the perception and judgments of socially important personality traits in themselves and others must be good enough to help an individual in solving such problems as forming important alliances, making friends, finding long-term mate, negotiating hierarchy, avoiding enemies, protecting and educating kids, to name but a few. Therefore, humans had to develop a number of skills including the automatic gauging the numerous personality traits for successful solving the problems of valid predictions of own and other behaviors. Such predictions can be regarded as important adaptive problems for solving, in turn, the most general problems of survival and reproduction. In other words, discrimination between individuals who are high and low on particular personality dimensions can be crucial for deciding with whom to cooperate, whom to obey, whom to help, whom to avoid, whom to select as a long-term mate, etc. A better navigation among several thousands of personality traits dimensions allows a better discrimination between individuals, better behavioral predictions, and better social decisions which finally help in solving the most general problems of survival and reproduction. Further, it seems to be impossible to deal with these problems in a complex social environment without a specialized skill allowing the correct navigation among numerous narrow personality dimensions. Given the importance of such a skill, one can expect that scientific research in the field of personality psychology can lead to uncovering and explaining such a navigation system.

Moreover, given that an evolved propensity for accurate discrimination between personality traits dimensions is more likely to arise for those dimensions that have most importance for survival and reproduction, the results pointing on different lengths of A, B, and C axes can be interpreted as indicating a relatively greater importance of traits associated with B-axis compared to traits associated with two other axes, especially with those associated with C-axis.

It seems that both B and A axes represent the major underlying dimensions of individual differences. They reflect the universal significance of discriminating others' tendencies to be good partners in alliances and to climb the social hierarchy. Definitely, this importance has been captured by the Hogan's idea of the two major "meta-traits" for "getting along" and "getting ahead" [7, 8]. Nevertheless, the present empirical results additionally suggest that the accurate discrimination along the narrow personality dimensions linked to the former tendency (to be good partners in alliances) seems to be of most importance. Finally, in accord with these empirical results, the third axis, C, is also of importance. However, although this underlying dimension is needed for solving some of crucial adaptive

problems, it is, definitely, of less importance in comparison with the dimension linked to the latter tendency (to climb the social hierarchy).

In particular, the results suggested the difference between traits of dimensions A and B that was already highlighted by the Hogan's classification distinguishing between traits to get ahead and along. These dimensions summarize the observers' tendency to discriminate between those who will successfully exploit group resources and those who will successfully contribute to them. Therefore, the socially desirable B-traits and status-relevant A-traits can be seen as the two most important axes of the structure of human attitudes toward those personality traits that are central to social adaptation. The perception might be aimed at recognizing and differentiating these traits, since their knowledge might have a high adaptive value in small groups of cooperative ancestors for predicting behavior of group members in a demanding social environment. These two dimensions can be viewed as representing two distinct kinds of benefits. The dimension A seems to include the most advantageous and powerful traits of an individual. These traits might provide benefits for self in any human societies because resources are always constrained. On the contrary, the dimension B appears to include the most socially salient features of an individual. These traits might provide benefits for others. While the traits of one of these two dimensions are useful for competition and can be used to surpass others, the traits of another dimension might be the best characteristics for cooperating and helping others.

For instance, the traits of the high pole of dimension A include a half of the traits of the low poles of the dimensions Agreeableness (II) and Conscientiousness (III). Low Agreeableness individuals might be better able to profit from competitive situations, and both low Agreeableness and low Conscientiousness individuals might be better able to escape over-exploitation by their group members. The empirical results [9] suggested that the differences between three ratings (of self, of liked one, and of disliked rather than disliked one) can serve as empirical confirmation of this interpretation of the benefits of these traits. Comparison of self-ratings with the liked-peer ratings revealed that the liked peers were seen as being somewhat better than their evaluators on all socially praised traits of A- and B-dimensions. The differences between self- and disliked peer ratings were the most pronounced along B-dimension, less pronounced along A-dimension, and only minor along C-dimension. The disliked peers were seen as less suitable for cooperation but more suitable for competition (lower in B and higher in A). Consequently, the biggest contrast between ratings was found for the traits beneficial for cooperation but not for competition.

In general, the distinction between traits of dimensions A and B might be one of the most critical distinctions in trait perception. People with competitive A-traits might benefit through success in competing with other people rather than by means of cooperation with them. People with helping B-

traits can provide benefits to others by cooperating rather than competing with them. The antipodal traits can be classified as maladaptive for competition, and as maladaptive for cooperation.

In short, the structure of personality traits can reflect the adaptive ability of humans to solve the problem of categorizing narrow personality traits along the three most important dimensions – Advantageousness (A), Benignity (B), and Controllability (C). Such a three-dimensional system can allow the categorization of humans in accordance with their expressed traits. It meets the need to discriminate personality types when confronted by a challenge of social adaptation in which profit or loss is most probable for an individual with certain personality traits. Therefore, knowledge about Advantageousness, Benignity and Controllability of personality traits can be used to gravitate toward the individuals with whom solving specific adaptive problems appears to be most promising.

5. Discussion

The identification of psychological adaptations lies at the heart of the paradigm of evolutionary psychology [12, 13]. The uncovering of the most useful and, presumably, natural taxonomy of personality traits might be the first step toward understanding the evolution and adaptive significance of personality structure in the theoretic framework of this direction of modern psychology. Once the universality and replicability of a psychological structure is assumed, the question that naturally follows concerned its adaptive significance and evolutionary origin. Although it is very natural to ask about the adaptive significance of psychological traits structures, this question is relatively rare discussed in the literature on personality psychology. In a search for comprehensive understanding of the adaptive significance of individual personality differences, one can ask questions such as: What is adaptive in each of 5-6 factorial dimensions of a personality traits structure? However, given that a narrow trait appears to be the most suitable level of inquiry about the adaptive significance of personality variation, a more appropriate question might be: What is common for specific adaptations related to the traits associated with the dimensions A, B, and C? In 1983 Hogan put forward an interpretation of his version of the Big factors' taxonomy which appears to be most clearly linked to the modern evolutionary psychological perspective [14, 15]. Namely, he [7] has proposed a socio-analytic view of the two-factorial structure of the Big Five with "meta-traits" "Stability" and "Dynamism". These "meta-traits" suggest that people are deeply concerned with solving two great problems, to get along and to get ahead [7, 8]. This idea, however, does not explain the emergence of less broad 5-6 personality traits that are reliably revealed by factor analysis of personality lexicons [1-6]. The present results indicate that the personality traits structure seems to be more parsimonious. It is three- rather than 5-6-dimensional in terms of the underlying rather than factorial dimensions. The

present results also indicate that two of these dimensions are bigger than the third and they both, indeed, correspond well to the Hogan's "meta-traits". The third dimension, however, seems to be also of importance for classifying the whole set of narrow personality traits.

It seems that the human capability to distinguish between numerous personality traits dimensions evolved as an essential life skill determined by a relatively autonomous, automatic, and specialized computational device ("module" in terminology of evolutionary psychology). This device makes nearly everyone well enough in navigating between hundreds or even thousands of narrow personality traits dimensions without much effort and outside of awareness. Figure 1 illustrates such feature of this device as the capability to organize the personality perception process in the framework of a very parsimonious three-dimensional ABC system. It provides a sense to which extent a particular narrow personality trait is advantageous (A), benign (B), and controlled (C) to solve the adaptive problems of predicting and controlling others' behavior via perception, classification, judgment, and signaling of fitness correlated personality traits.

If humans are, indeed, skilled at perceiving personality traits according to their relevance to as few as three dimensions, it would be fruitful for future research to consider whether such a person-perception ability can point to the role played by several well-known evolutionary mechanisms in shaping personality variation in our species (see [9] for further discussion).

In sum, the proposed three-dimensional structure in the shape of rugby cake [11] seems to reveal the algorithm of ABC assessment of personality traits. It could help in solving the problem of categorizing personality traits along the three most important dimensions, Advantageousness (A), Benignity (B), and Controllability (C). A particular trait that is cued by behavior typical for a person can be differentiated from another trait as being more or less advantageous, more or less benign, and more or less controlled. The rugby cake shape also suggests that differentiation of narrow personality traits along Benignity dimension is of most importance, whereas the differentiation along Controllability dimension is of least importance. This algorithm of ABC trait assessment can be a psychological adaptation in its own right. It provides a parsimonious way of organizing information on everyday perceptions of personality traits.

6. Conclusion

The practice of classification of trait words indicates that each original list consisting of hundreds of these words of personality lexicon can be replaced by 5-6 broad factorial dimensions. Usually, the personality psychologists do not explain the nature of such empirically derived personality traits structures. Instead, they often stress that neither theory is supported by such factorial models of personality traits structure due to their pure empirical origin. In contrast, the proposed three-dimensional rugby cake model allows the

replacement of a six-factor representation of personality traits structure by a more parsimonious representation with only three spatial (underlying) dimensions named Advantageousness (A), Benignity (B), and Controllability (C). Such structural representation pointed at the possibility that the rugby cake shape reflects a human capability to unconsciously organize the personality perception process in the framework of a very parsimonious three-dimensional ABC system. It can provide a sense to which extent a particular narrow personality trait is advantageous (A), benign (B), and controlled (C) to solve the adaptive problems of predicting and controlling others' behavior via perception, classification, judgment, and signaling of fitness correlated personality traits. Given that an evolved propensity for accurate discrimination between personality traits dimensions is more likely to arise for those dimensions that have most importance for survival and reproduction, the results showing the difference in length of A, B, and C axes can be interpreted as indicating a relatively greater importance of traits associated with B-axis compared to traits associated with two other axes, especially with those associated with C-axis. In sum, it is likely that this ability to parsimoniously distinguish between numerous narrow personality traits dimensions evolved as an essential life skill determined by a relatively autonomous, automatic, and specialized computational device ("module" in terminology of evolutionary psychology) that makes nearly everyone well enough in navigating between hundreds of such traits dimensions without much effort and outside of awareness.

Acknowledgements

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